



PTO/SB/21 (08-03)

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|---|---------------------|---------------------------|------------------------|
| <b>TRANSMITTAL<br/>FORM</b><br><br>(to be used for all correspondence after initial filing) |                     | Application Number        | 10/649,007             |
|   |                     | Filing Date               | August 26, 2003        |
|   |                     | First Named Inventor      | Frederic M.A COPPINGER |
|   |                     | Art Unit                  | Not Yet Assigned       |
|   |                     | Examiner Name             | Not Yet Assigned       |
| Total Number of Pages in This Submission  | 6 + 4<br>references | Attorney Docket<br>Number | 490102001400           |

| ENCLOSURES (Check all that apply)   |  |  |
|---|--|--|
| <input type="checkbox"/> Fee Transmittal Form<br><br><input type="checkbox"/> Fee Attached<br><br><input type="checkbox"/> Amendment/Reply<br><br><input type="checkbox"/> After Final<br><br><input type="checkbox"/> Affidavits/declaration(s)<br><br><input type="checkbox"/> Extension of Time Request<br><br><input type="checkbox"/> Express Abandonment Request<br><br><input checked="" type="checkbox"/> Information Disclosure Statement (3 pages)<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><br><input type="checkbox"/> Response to Missing Parts/ Incomplete Application<br><br><input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><br><input type="checkbox"/> Licensing-related Papers<br><br><input type="checkbox"/> Petition<br><br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><br><input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address<br><br><input type="checkbox"/> Terminal Disclaimer<br><br><input type="checkbox"/> Request for Refund<br><br><input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance Communication to Group<br><br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><br><input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)<br><br><input type="checkbox"/> Proprietary Information<br><br><input type="checkbox"/> Status Letter<br><br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>1. Form PTO-1449 + copy (2 pages)<br>2. Four (4) references<br>3. Return postcard |
| <div>Remarks</div>  |  |  |

| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT |   |       |
|--|---|-------|
| Firm or Individual name                    | MORRISON & FOERSTER LLP<br>Norman R. Klivans - 33,003 | 25226 |
| Signature                                  |   |       |
| Date                                       | October 17, 2003                                      |       |

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: October 17, 2003 Signature: Darci Sakamoto (Darci Sakamoto)



PATENT  
Docket No. 490102001400

**CERTIFICATE OF MAILING BY "FIRST CLASS MAIL"**

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Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 17, 2003.

*Darci Sakamoto*  
Darci Sakamoto

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Frederic M.A. COPPINGER et al.

Serial No.: 10/649,007

Filing Date: August 26, 2003

For: METHOD AND APPARATUS TO  
REDUCE SECOND ORDER  
DISTORTION IN OPTICAL  
COMMUNICATIONS

Examiner: Not Yet Assigned

Group Art Unit: Not Yet Assigned

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Pursuant to the USPTO notice dated July 11, 2003, waiving the requirement under 37 C.F.R. § 1.98 (a)(2)(i) to provide copies of U.S. Patents and U.S. Published Applications, copies of those references numbered 1 and 2 are not submitted. Copies of non-patent literature are submitted herewith in

accordance with 37 C.F.R. § 1.98 (a)(2). The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted:

- ☐ With the application; accordingly, no fee or separate requirements are required.
- ☐ Before the mailing of a first Office Action after the filing of a Request for Continued Examination under § 1.114.
- ☒ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.
- ☐ After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
  - ☐ A fee is required. A check in the amount of \_\_\_ is enclosed.
  - ☐ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly; no fee is believed to be due.
- ☐ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the amount of \_\_\_ is enclosed.
  - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmittal form (PTO/SB/17 is attached to this submission in duplicate.)

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does

not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 490102001400. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: October 17, 2003

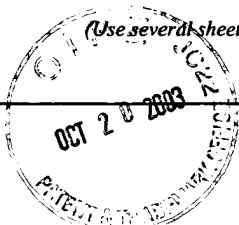
Respectfully submitted,

By: 

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|  |   |                                 |
|--|---|---------------------------------|
| <b>Form PTO-1449</b><br><br><b>INFORMATION DISCLOSURE CITATION<br/>IN AN APPLICATION</b><br><br><i>(Use several sheets if necessary)</i> | Docket Number 490102001400                      | Application Number 10/649,007   |
|  | Applicant<br><br>Frederic M.A. COPPINGER et al. |                                 |
|  | Filing Date August 26, 2003                     | Group Art Unit Not Yet Assigned |
|  | Mailing Date October 17, 2003                   |                                 |



## U.S. PATENT DOCUMENTS

| Examiner<br>Initials | Ref.<br>No. | Date       | Document No. | Name            | Class | Subclass | Filing Date If<br>Appropriate |
|----------------------|-------------|------------|--------------|-----------------|-------|----------|-------------------------------|
|                      | 1.          | 01/11/1994 | 5,278,688    | Blauvelt et al. |       |          |                               |
|                      | 2.          | 08/17/1999 | 5,940,196    | Piehler et al.  |       |          |                               |

## FOREIGN PATENT DOCUMENTS

| Examiner<br>Initials | Ref.<br>No. | Date | Document No. | Country | Class | Subclass | Translation<br>YES NO |
|----------------------|-------------|------|--------------|---------|-------|----------|-----------------------|
|                      |             |      |              |         |       |          |                       |

## OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

| Examiner<br>Initials | Ref.<br>No. | Title   |
|----------------------|-------------|---|
|                      | 3.          | Agrawal, G. (1995). <u>Nonlinear Fiber Optics</u> , Second Edition Academic Press: San Diego, CA pp vii-xiv (Table of Contents Only.)   |
|                      | 4.          | Coppinger, F. et al. (2001). "The Effect of SPM, EPM and Sign of Dispersion on the Second Order Distortion in Analog Link," <i>Optical Fiber Communication Conference and Exhibit</i> , Anaheim, CA, March 17-22, 2001 paper WCC2-1, three pages. |
|                      | 5.          | Phillips, M.R. and Ott, D.M. (1999). "Crosstalk Due to Optical Fiber Nonlinearities in WDM CATV Lightwave Systems," <i>Journal of Lightwave Technology</i> 17(10):1782-1792.  |
|                      | 6.          | Phillips, M.R. et al. (1991). "Nonlinear Distortion Generated by Dispersive Transmission of Chirped Intensity-Modulated Signals," <i>IEEE Photonics Technology Letters</i> 3(5):481-483.  |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.